UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,361	06/15/2005	Andrei Mijiritskii	NL 021337	7366

24737 7590 07/03/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
ALUNKAL, THOMAS D	
ART UNIT	PAPER NUMBER
2627	
MAIL DATE	DELIVERY MODE
07/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/539,361	MIJIRITSKII ET AL.	
	Examiner	Art Unit	
	THOMAS D. ALUNKAL	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments pertaining to the newly proposed amendments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ota (US 5,559,784).

Regarding claim 1, Ota discloses a writable optical record carrier comprising a substrate carrying a recording stack (Figure 23) which recording stack comprises a recording layer (Figure 23, Element 102, *recording layer*) and formed on said recording layer, a first absorption layer (Figure 23, Element 105, *absorbing layer*), the recording layer being essentially transparent in its initial state for an incident beam of electromagnetic radiation at a predetermined wavelength, and comprising material which changes its optical characteristics when it is heated (Column 13, 42-58, *virgin (unrecorded) recording layer* and Figure 25 (a) *where light is transmitted through the*

recording layer without changing its optical characteristics), the first absorption layer comprising material which has an absorption coefficient being sufficiently high at the predetermined wavelength to convert the incident beam to heat and thereby changing the optical characteristics of said recording layer material (Column 17, lines 25-64, *where the absorption layer is heated at a predetermined wavelength and this heat is transferred to the adjacent recording layer*). Ota does not specifically disclose where the recording layer is formed on said substrate and the first absorption layer is formed on the recording layer opposite the substrate. Rather, Figure 25(a) of Ota further discloses the light absorbing layer formed on the substrate followed by the recording layer.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the light absorbing layer (105) on top of the recording layer (102), relative to the substrate (101), of Ota, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the light absorbing layer (105) on top of the recording layer (102), relative to the substrate (101), of Ota, motivation being to directly irradiate incident light (104) on light absorbing layer (105) resulting in more efficient heat production in the light absorbing layer (105).

Regarding claim 2, Ota does not disclose that said recording layer comprises an organic dye material.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the recording medium of Ota with a recording layer comprising an organic dye material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 3, Ota discloses said recording stack further comprises a second absorption layer located on the opposite side of said first absorption layer between said recording layer and said substrate (Figure 23, Element 105, *which discloses multiple absorbing layers*).

Regarding claim 4, Ota discloses said first and second absorption layer material is a material with low thermal conductivity (Column 18, lines 1-16. *More specifically, the absorption layers are composed of a ZnS material which has a low thermal conductivity*).

Regarding claim 5, Ota does not specifically disclose that first and second absorption layer material is ZnS-SiO2. Ota only discloses a ZnS material.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the absorption layers of Ota with a ZnS-SiO2 material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 6, Ota discloses said recording stack further comprises one or more additional layers adjacent to said first and/or second absorption layers in order to

enhance the optical and thermal properties of the record carrier *(Figure 23, Element 103, space layers*).

Regarding claim 8, Ota discloses a method for writing information on a writable optical record carrier (see Abstract), the recording carrier comprising a substrate carrying a recording stack (Figure 23) which recording stack comprises, in this order, a recording layer being essentially transparent in its initial state for an incident beam of electromagnetic radiation at a predetermined wavelength and comprising material which changes its optical characteristics when it is heated (Column 13, 42-58, *virgin (unrecorded) recording layer* and Figure 25 (a) *where light is transmitted through the recording layer without changing its optical characteristics*), and formed on said recording layer, a first absorption layer (Figure 23, Element 105, *absorbing layer*), in which method marks representing the information are written via a beam of electromagnetic radiation at a predetermined wavelength (Column 17, lines 25-64, *where the absorption layer is heated at a predetermined wavelength and this heat is transferred to the adjacent recording layer*), the method comprising the following steps: positioning a writing unit at a predetermined position with respect to said record carrier (Figure 1, *optical recorder*), generating said beam with a predetermined writing power by means of the writing unit (Figure 1), transmitting said beam through said recording layer without changing the optical characteristics of said recording layer material (Column 13, 42-58, *virgin (unrecorded) recording layer* and Figure 25 (a) *where light is transmitted through the recording layer without changing its optical characteristics*), at least partially absorbing said beam in the first absorption layer, thereby producing a first

spot of heat, conducting the heat produced in the first absorption layer towards the recording layer, and locally changing the optical characteristics of said recording layer material by means of the heat conducted from the heat spot in the first absorption layer (Column 17, lines 25-64, *where the absorption layer is heated at a predetermined wavelength and this heat is transferred to the adjacent recording layer*). Ota does not specifically disclose where the recording layer is formed on said substrate and the first absorption layer is formed on the recording layer opposite the substrate. Rather, Figure 25(a) of Ota further discloses the light absorbing layer formed on the substrate followed by the recording layer.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the light absorbing layer (105) on top of the recording layer (102), relative to the substrate (101), of Ota, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the light absorbing layer (105) on top of the recording layer (102), relative to the substrate (101), of Ota, motivation being to directly irradiate incident light (104) on light absorbing layer (105) resulting in more efficient heat production in the light absorbing layer (105).

Regarding claim 9, Ota discloses that a second heat spot is produced by at least partially absorbing said beam in a second absorption layer located on the opposite side of said first absorption layer between said the recording layer and said substrate Figure

23, Element 105, *which discloses multiple absorbing layers*), the heat produced in the second absorption layer is conducted towards the recording layer, and in that the optical characteristics of the recording layer material are locally changed by means of the heat conducted from the heat spot in the first and the second absorption layers (Column 17, lines 25-64, *where the absorption layer is heated at a predetermined wavelength and this heat is transferred to the adjacent recording layer*).

Regarding claim 10, Ota discloses that the writing power of said beam is varied while writing information on said optical record carrier so that marks are written with different size and/or depth (Figure 15C *which discloses varying laser power distribution*).

Regarding claim 11, Ota discloses that the writing power of said beam is varied for compensating heating up of the record carrier while writing information on said optical recording carrier (Figure 15C *which discloses varying laser power distribution*).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ota (US 5,559,784) and in view of Zhou (US PgPub 2001/0033991).

Regarding claim 7, Ota does not disclose that the record carrier further comprises a cover layer attached to the top surface of the recording stack opposite the substrate. In the same field of endeavor, Zhou discloses a recording medium with a cover layer disposed on the top side of the recording medium on a side opposite the substrate (Figure 1, Element 9, *cover layer*).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the cover layer of Zhou to the recording medium of Ota, motivation being to protect the underlying layers of the recording medium from the environment (Paragraph 0033 of Zhou).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rijpers et al. (US PgPub 2002/0110081) disclose an optical information medium and its use. Kanno et al. (US 5,049,428) disclose an optical information recording medium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS D. ALUNKAL whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas D Alunkal/
Examiner, Art Unit 2627

/Wayne Young/
Supervisory Patent Examiner, Art Unit 2627